

ON *OXYAMBULYX SUBSTRIGILIS* AND SOME ALLIED SPHINGIDAE.

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(With Plate III.)

THE various Indo-Malayasian forms of *Oxyambulyx* R. & J. (1903) which have a large black basal patch on the upperside of the hindwing were treated by us in the Revision of the Sphingidae (1903) as subspecies of *O. substrigilis* Westw. (1848), at that time only one form being known to us to occur in each locality. Twenty years later, in *Entom. Mitteil.* xii. p. 51 (1923), I said that three distinct species with black base to the hindwing instead of one were found on the Sunda Islands. This statement requires amplification, and the nomenclature used correction inasmuch as I referred the name *O. pryeri* Dist. (1887) to the wrong species, although in the Revision the species described by Distant had been correctly identified.

The specimens from the Philippine Islands, which are remarkably different from the Sundanese and Malayan ones in the ♂-genital armature, stand apart, and as we shall soon have additional specimens for comparison, I abstain from dealing with them in the present paper.

The numerous specimens of this group of *Oxyambulyx* obtained by Messrs. Pratt on Sumatra (some of which have generously been placed at my disposal by my friend Dr. B. Preston Clark) render it certain that there are four different species on Sumatra and the Malay Peninsula—and presumably also on Borneo, whence we have so far only three.

1. *Oxyambulyx pryeri* Dist. (1878).

A large species, corresponding to *O. staudingeri* Roths. (1894) from the Philippines. The type-specimen of *O. pryeri*, which came from Sandakan, North Borneo, seems to have disappeared. According to the description it was certainly a ♀, though the sex was not stated by the author of the name. Having compared the tail-ends of several ♂♂ from each of the islands of Borneo, Sumatra and Java, I confess to have failed in finding any fairly constant differences between the specimens from these places. I therefore must regard the names *eteocles* Huwe (1895, Java) and *sumatranus* Roths. (1920, Sumatra) as synonyms of *O. pryeri*.

♂. Sternite VII is produced into a median lobe which is about as long as it is apically broad; its apical margin (fig. 4) is turned upward (= inward), and each angle produced into a conical projection which is directed more or less upwards. The ventral process of the harpe tapers towards the end, the apex being very much narrower than in *O. substrigilis*, almost pointed; the dorsal, sharply pointed, process of the harpe is strongly curved and nearly as long as the ventral process. The dorsal longitudinal rib of the penis-sheath ends with a process which, though very variable in length individually, is always longer than in any of the other species here dealt with, and is always curved more or less dorsad, i.e. away from the mouth of the sheath; the inner sclerite of the sheath is drawn

out into a long, rod-like, process, which is non-serrate (fig. 10, dorsal aspect, fig. 11, lateral aspect, taken from two specimens, both from Java).

Hab. Malay Peninsula ; Borneo ; Sumatra ; Java.

2. *Oxyambulyx clavata* spec. nov.

Oxyambulyx pryeri Jordan (nec Distant, err. determinationis), *Ent. Mitteil.* xii, p. 51 (1923).

We know only ♂♂. In colour not distinguishable with certainty from the next species. On the whole smaller than *O. pryeri*. The median lobe of sternite VII individually variable in width, similar to that of *O. pryeri*, but the apical margin not turned inward, and the projecting angles turned sideways and remaining more or less on a level with the median portion of the apical lobe (fig. 5, Sarawak ; fig. 6, Kina Balu, type). The median rib of the penis-sheath (fig. 12) projects beyond both lateral serrate ridges ; its apex is swollen and then narrowed into a point which is directed dorsad-laterad. The inner sclerite (fig. 13, from type) of the sheath appears in two forms as figured, the denticulate ridge of this sclerite being dorsal ; the difference in width is partly due to the sclerite as shown in fig. 14 being flattened ; further material must be examined before this apparent dimorphism can be looked upon as established. The ventral process of the harpe (fig. 3) is gradually narrowed to a point, nearly as in *O. pryeri* ; the subventral, irregularly dentate, ridge on the proximal half of the harpe is variable in height, as it is in *O. pryeri*.

Hab. Borneo : Kina Balu, type ; Sarawak ; Limbang River.—Sumatra (in coll. Preston Clark).—Malay Peninsula.

3. *Oxyambulyx substrigilis* Westw. (1848).

In this species the median lobe of sternite VII of ♂ is quite short, with the apical margin turned dorsad (= inward) ; the angles of the lobe are usually drawn out into a short projection each (as in fig. 8), which is directed dorsad. The ventral process of the harpe (fig. 1) is broad, spatulate, its apex being more strongly rounded dorsally than ventrally, so that it projects somewhat ventrad. The midrib of the penis-sheath is very little longer than the serrate right-side ridge¹ ; the apical portion of this ridge lies close along the midrib, and both are curved ventrad-laterad ; the left dentate ridge is widened apically and is either shorter or longer than the midrib. The inner sclerite of the sheath is without serration ; its apex is bifurcate as in fig. 16, with the right projection sharply pointed and strongly chitinated, the left projection being short and obtuse, sometimes barely indicated.

(a) *O. substrigilis brooksi* Clark (1923).

The left dentate ridge of the penis-sheath projects beyond the apex of the midrib (the ridge is often elbowed, its apical portion then lying more or less horizontally across the opening of the sheath). Figs. 7, 8, both taken from Sumatran specimens, represent extremes in the development of sternite VII. Fig. 1 gives a view of the harpe taken from vertically above the broad ventral process.

Hab. Sumatra, Borneo and Malay Peninsula.

¹ " Right " side in figure, the apex of the sheath turned away from the eye.

4. *Oxyambulyx tattina* Jord. (1919).

At the time when I described this *Oxyambulyx* we had no other species from Sumatra with a blackish basal patch on the hindwing, and I therefore regarded *tattina* as representing *O. substrigilis* on the island. The discovery on Sumatra of *O. substrigilis brooksi* by Messrs. Pratt, who also obtained a series of both sexes of *O. tattina*, leaves no doubt that we have in *O. tattina* a fourth Malay-Sundanese species, which occurs side by side with *O. substrigilis brooksi*, *O. clavata* and *O. pryeri*.

In colour both sexes are recognisable by the forewing being strongly washed with raw umber from the tornus forward to vein R^3 and along distal margin; the species further differs from the previous ones in the subbasal, olive-black, rounded posterior spot of the forewing being either small or replaced by a greyish spot (similar in colour to the pale portions of the disc of the wing), in the outer area of the forewing beneath being so deep tawny that the submarginal line, which borders the grey marginal band, is hardly visible (except in a worn specimen, in which the dark markings are more prominent than in fresh specimens).

Sternite VII has the median lobe very broad and very short, the apical margin of the lobe is not distinctly incrassate, and the angles are not produced (fig. 9). The ventral process of the harpe (fig. 2) is nearly as in *O. substrigilis*, but the apex is dorsally as well as ventrally subangulate, being more symmetrical than in *O. substrigilis*. The midrib of the penis-sheath (fig. 17) is nearly as in *O. substrigilis*, but longer than both dentate ridges, and the right-side dentate ridge is separated from the midrib by a broad interspace; the internal sclerite, fig. 18, is flat, obtuse and on one side minutely denticulate.

Hab. Sumatra, and in coll. Preston Clark one worn ♂ from the Malay Peninsula.

Opistoclanis gen. nov.

Near *Clanis*, but the tibiae without spines.

The pattern of the forewing of the only known species consists in the main of bands which run from the costal margin obliquely back and outwards, being costally nearer the base than posteriorly. This peculiar design, as well as the red colouring of the hindwing and of the underside, recalls the African genus *Libyoclanis*, from which *Opistoclanis* differs, however, in the tibiae being non-spinose and in the cross-veins of the hindwing being much more oblique and consequently the lower cell-angle much more acute.

Genotype: *Clanis hawkeri* Joicey & Talbot (1921), from French Indo-China.
